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ABSTRACT

This report on some of the strategic planning decisions that OCLC has made for the 21st century begins by describing the evolution of OCLC from a pioneer in the computer revolution with its Online Union Catalog and Shared Cataloging System in 1971 to a system that currently has nearly 60 distinct offerings. Corresponding computer and telecommunications advances are noted. The first of seven sections discusses ways in which the environment--e.g., economic conditions, rapidly changing information technology, and government initiatives--will affect OCLC's strategic directions. Ways in which libraries are meeting the challenges of the 21st century in the areas of access, ownership, and decentralization are described in the second section, and some general patterns that are emerging in the library environment are identified. An assessment of OCLC's major strengths, weaknesses, opportunities, and risks is provided in the third section, and the fourth, fifth, and sixth sections present a strategic overview of OCLC's plans for providing further access to information via both traditional and new products and services for libraries and their users. A general planning strategy for the years 1990-1995 and a vision for the years 1995-2000 are also presented. The final section presents a profile of OCLC, including its history, mission, governance, finances, products and services, marketing channels, international connections, union catalog, new ventures, and research. The names, addresses, and telephone numbers of state and regional networks that contract to provide OCLC services and support to OCLC-member and participating libraries appear on the inside back cover of the report. Numerous color graphics and color photographs illustrate the text. (MAB)

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JOURNEY TO THE 21ST CENTURY

Libraries will continue to build the OLUC which will continue as the world's preeminent bibliographic database
Options Window
Position:

A Summary of

OCLC's Strategic Plan

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• Letter from the President •

We live in the Information Age, and OCLC is an information-based organization with a tremendous number of opportunities to choose from. In "Journey to the 21st Century," we at OCLC would like to share with you some of the choices we have made and the decisions that will guide us in the decade ahead as we continue to provide libraries with high-quality, affordable products and services designed to further access to the world's information.

The importance of strategic planning lies mainly in the process, not in the product, and thus, the strategic plan set forth here is an overview of an ongoing strategic planning cycle at OCLC. As part of that cycle, we regularly assess where we are now, determine where we want to be, decide how best to get there, and then proceed to get there. Put simply, strategic planning is making the right things happen.

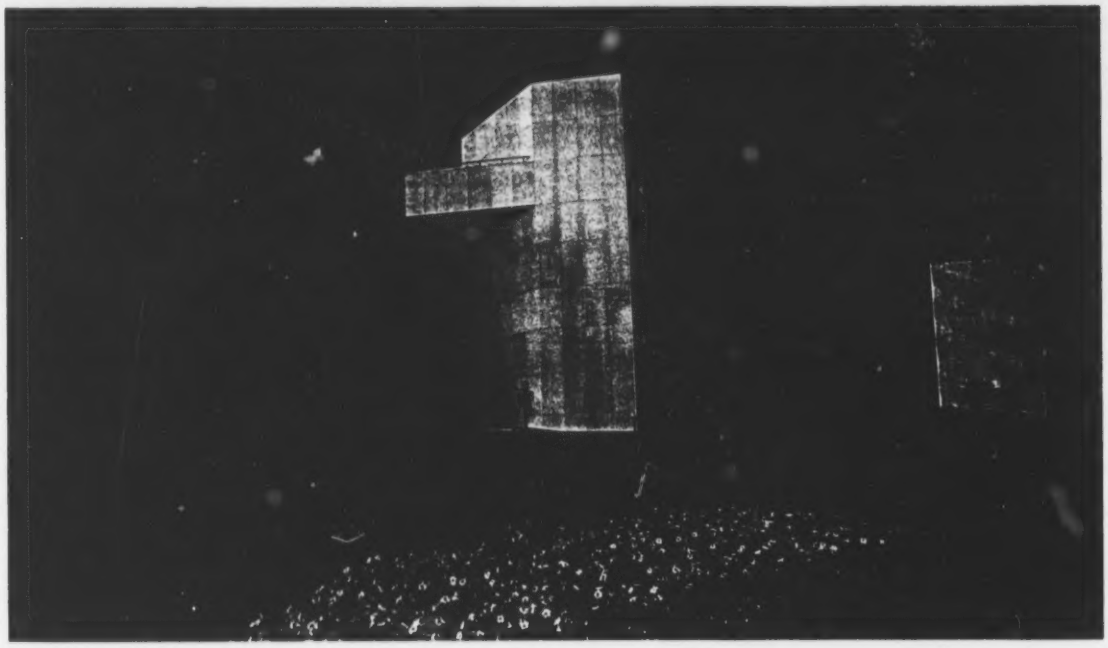
In brief, our strategy is as follows. With a new telecommunications network and a new online computer system, we will have a modern, modular technological platform that will enable us to add planned enhancements to our existing base of products and services and, at the same time, create a new base of products and services. OCLC will maintain its position as a world-class database of bibliographic information through a steady stream of enhancements in cataloging and resource sharing. We will move beyond bibliography to become a world-class provider of reference services, including full-text information. And, we will become fully integrated into the digital, broadband, global community that is emerging. We fully intend to move with all deliberate speed toward the ultimate goal of providing information to people in the form required, when and where needed, and at an affordable price.

This is a bold strategy based on a good plan, ample financial resources, good people, and a proven formula. Most importantly, it is a strategy consistent with OCLC's public purposes and with its tradition of helping libraries work together to reduce information costs and to further access to the world's information.

K. Wayne Smith

K. Wayne Smith
President and Chief Executive Officer
September 15, 1991

Introduction



In 1971 OCLC pioneered the computer revolution in libraries with the Online Union Catalog and Shared Cataloging System, which enabled libraries to rapidly and efficiently catalog books and order custom-printed catalog cards.

In the next 20 years, the OCLC network grew from 54 academic libraries in Ohio to more than 13,000 libraries in the U.S. and 45 other countries. During that same period, OCLC provided its member libraries with nearly $1 billion in services from a product/service line that has expanded from online cataloging and card production to nearly 60 distinct offerings.

Paralleling OCLC's rapid and steady growth were powerful new trends in libraries, in the information industry, in computing, and in telecommunications.

Libraries had to contend with an ever-expanding base of knowledge and a steadily eroding base of resources.

The information industry burgeoned from several vendors of medical and legal databases to over 2,200 providers of more than 4,800 databases.

1971
54 libraries in Ohio

1991
13,847 libraries in 46 countries

Introduction

The computer industry innovated relentlessly as computers shrank in size from a room to a thumbnail and as their total population in the U.S. increased from less than 400,000 in 1970 to more than 40 million in 1990. According to a 1989 U.S. Bureau of the Census survey, the proportion of U.S. households with computers grew from 8% (7 million homes) in 1984 to 15% (13.7 million homes) in 1989.

And telecommunications advances brought the ability to link networks, to move information at higher and higher speeds, and to combine different types of data in ways barely perceived 20 years ago.

In this next phase of the online revolution, libraries are expected to actively provide information to users when and where they need it

OCLC enters the third decade of the online revolution in libraries with a new telecommunications network, a new online system, new strategic alliances, and a renewed commitment to serving libraries in the Information Age.

In the next phase of the online revolution, libraries are expected to actively provide information to users in the form they want, when and where they need it. This "Journey to the 21st Century" promises to be an exciting, challenging, and ultimately, rewarding voyage to the new frontiers of information service.

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The Environment

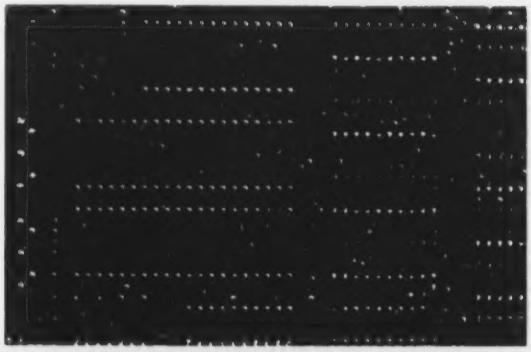
Economic conditions, rapidly changing information technology, and government initiatives will affect OCLC's strategic directions.

Economic Conditions

The economic downturn that began in 1990 is adversely impacting library budgets and services in 1991 in both the public and private sectors. Soaring costs, squeezed budgets, service cuts, personnel layoffs, and library closings are steadily increasing in the library community. As library budget cuts take hold, there has been a corresponding downturn in use of OCLC's products and services. While revenues in cataloging and resource sharing have remained relatively stable, libraries have less discretionary funds for OCLC's new products and services. The likelihood that libraries will have less resources to work with over the foreseeable future is increasing. The implications of this trend must be a part of the planning process.

Information Technologies

In the past 35 years, computer speeds have increased nearly a million times. The price of entry-level computers has decreased by a factor of 1,000. In most areas, costs continue to fall and economic lifespans of equipment continue to shorten. For example, the hardware cost to store one megabyte dropped from $130 in 1989 to $90 in 1990 and is expected to plunge to $40 by 1993. Also, transmission costs on a per-bit basis are falling and are expected to decline sharply during this decade. Organizations must be able to adapt to the steady advances in information technology in much shorter time periods than previously. This relentless advance of technology, combined with declining budgets, makes strategic planning both more essential and more difficult. It also makes possible increasing competition from local or regional systems as their capabilities are enhanced in the cataloging and lending areas and as their use is mandated by state and local authorities.



• The Environment •

Government

The majority of OCLC member libraries are tax-supported and operate with funds provided by local, state, or federal governments. Increasingly, governments are funding or subsidizing programs and services that duplicate similar services provided by OCLC or others in the private sector. Most services are originally justified on the basis of providing "local control" and are touted as being "free." Such services are a powerful disincentive to participate in national cooperative systems such as OCLC's, and as they increase, OCLC's economies of scale are diminished.

At the federal level, there is growing interest among libraries in the proposed National Research and Education Network (NREN) which, if funded by Congress, would provide free telecommunications service to colleges, universities, libraries, and individuals connected with those institutions. Similarly, the Library of Congress has proposed to expand its online services for cataloging and to establish new fee-based services in areas heretofore in the realm of the private sector.

At the state level, governments and related institutions continue to establish telecommunications networks or computer systems for resource-sharing and, potentially, for cataloging that are essentially free to libraries.

Impact on Strategy

These changing environmental parameters will fundamentally impact OCLC's future plans and products. Particularly vulnerable are OCLC's traditional core services: cataloging, resource sharing, and telecommunications and access services. These are already mature products with declining opportunities for additional growth in the U.S. At a minimum, OCLC must become more efficient to be the low-cost producer and reduce prices in order to remain competitive in its traditional markets; must react faster to changes in technology and in the information needs of libraries and their users; and must provide new products and services with recognizable value to replace declining revenue streams from traditional products. This will require a delicate balancing of traditional and new products and services during the transition period as OCLC moves beyond bibliography.

Libraries

In the 1990s, libraries will be under increasing pressure to do more with less.

Libraries are going beyond conventional means to organize, store, access, retrieve, and distribute the world's information in the 1990s. A generation of library users has grown up with electronic access to information, and their library service expectations continue to rise. The growth in the volume of information and the costs of that information are outpacing the staff and budgetary resources of libraries. The serious problem of preserving deteriorating materials further complicates the general library economic situation.

Access and Ownership

To meet these challenges, libraries are relying increasingly on access to information rather than ownership of that information. Libraries are de-emphasizing their traditional passive role as a storehouse of information and taking an increasingly active role in providing information to users when and where they need it, in a form that they want. "Just in time" will increasingly replace "just in case" as the operating norm of libraries, particularly in regard to document delivery.

In a world of limited acquisitions budgets and a steadily increasing number of publications, no library is self-sufficient. In 20 years, the number of serials titles has increased from 55,000 to 116,000; the number of copyrighted works produced in a single year has gone from 316,500 in 1970 to 565,000 in 1988. In 1979, 221 database producers operated 400 databases, while in 1991 some 2,200 database producers operated 4,869 databases. While book title output varies from year to year, prices invariably rise: the average cost of a hardcover book in 1989 was $40, compared with $23 in 1979.

To facilitate access to information, libraries are placing greater reliance on resource sharing and use of commercial document suppliers. They are empowering end-users with sophisticated search and retrieval techniques to conserve scarce library staff resources at the same time that these end-users are finding their own way through growing masses of information.

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Decentralization

Libraries are also seeking to decentralize many automation tasks currently performed on large, centralized systems such as OCLC's. As more libraries mount their own local library systems, they are linking their systems regionally for cataloging, reference, and resource sharing under the aegis of state and federal funding. Some large libraries have already proposed linking via the Internet (a federally funded network of networks), and the proposed NREN offers additional prospects for low-cost or free telecommunications among thousands of decentralized, standalone library systems.

Academic libraries are forging new alliances with campus computing centers to build campus-wide information systems that feature online access to the library catalog and other services delivered electronically to faculty, students, and staff.

State libraries are attempting to democratize electronic access to information by sponsoring programs that disperse the technology for cataloging and resource sharing services to smaller libraries that heretofore have been unable to afford new technology.

Perhaps hardest hit by budget cutbacks, public libraries had no choice but to seek the most cost-effective means to serve their patrons. Continuing to keep OCLC products and services affordable to these libraries is a growing concern.

In short, changes in the role, priorities, and funding of libraries; technological advances such as distributed processing and powerful microcomputers; and changes in library and patron expectations have altered some of the basic assumptions that attended the early growth of the OCLC Online System. Local, state, regional, and national networks now hold out the promise of "free" telecommunications services. Local systems seem to reduce the need for collaboration and timely sharing. These changes go to the heart of OCLC, which was built on cooperation, resource sharing, and providing needed products and services at the lowest possible cost.

Patterns

Five clear patterns are emerging in the library environment of the 1990s. In general, libraries are gravitating toward:

- Low-cost commodity pricing of information services from many cost-effective producers.
- User-friendly interfaces that offer seamless access to local, regional, and national information services.
- A focus on access rather than ownership in providing cost-effective library services.
- End-user electronic access to library and information services, irrespective of a user's location.
- Electronic delivery of full-text information.

OCLC must address these emerging patterns in its plans for future products and services.

Corporate Assessment

OCLC's major strengths, weaknesses, opportunities, and risks will all affect its strategic directions.

Strengths:

- **The OCLC Online Union Catalog,** which is the world's largest and most comprehensive bibliographic database.
- **The OCLC membership,** which manages a significant portion of the world's intellectual resources, and its commitment to resource sharing and to reducing information costs.
- **A large market share,** which provides cost advantages both domestically and internationally.
- **A partnership with regional network affiliates** committed to excellence in training and service.
- **Financial resources,** as measured by net worth, revenues, cash flow, and contribution to equity, provide the wherewithal for innovation and new programs.
- **Research and development activities** aimed at both core services and new applications of technology for the information continuum.
- **Staff of highly qualified people** from librarianship, computer science, and business, who have unparalleled experience in operating large online library systems.
- **New, state-of-the-art technological platform** for communication/access, cataloging, resource sharing, and reference services.
- **Reputation, experience, and standing in the library community.** OCLC has been serving libraries online for over 20 years.

Weaknesses:

- **A corporate culture** that has historically had more of an academic, rather than results, orientation in decision-making.
- **Complexity** in membership, governance, distribution channels, and products and services.
- **A technological life cycle** characterized by high development costs, long lead times, and a progressively shorter useful life.
- **A high, fixed-cost base** that cannot be changed quickly in response to changing market conditions.
- **Declining revenues** in traditional products and services and well-established competitors in synergistic new product and service areas.

Opportunities:

- **New, modular, technological platform** that will allow for easier development of new products and services and faster enhancements to existing products and services.
- **New core business in reference services** that will enable OCLC to move closer to the electronic provision of full-text online information.
- **Strategic information alliances** that will enable OCLC to provide products and services needed by the membership but which OCLC cannot economically provide by itself.
- **New markets** in cataloging, resource sharing, and reference at the international level.
- **New, synergistic products and services** in nontraditional areas such as preservation, imaging, and database development.

Risks:

- **Increasing financial vulnerability of libraries.**
- **Increasing decentralization** of library automation systems.
- **Increasing government role** in providing telecommunications and information services that duplicate OCLC's.
- **Decreasing community support** for the principles of cooperation, resource sharing, and collaboration.
- **Technological breakthroughs** that would make traditional products and services less competitive or obsolete.

Strategic Overview

OCLC will further access to information by providing both traditional and new products and services for libraries and their users.

The business of OCLC is providing information. OCLC's activities, services, and technologies must enhance or further access to the formidable information resources that OCLC already provides: the world's premier database of bibliographic and library holdings information; a vast telecommunications network that links more than 13,000 libraries in the U.S. and 45 other countries; and powerful computer systems for cataloging, resource sharing, and reference services.

Planning Algorithm

OCLC's operating strengths are in running a large online system. OCLC's product strategy is to do a few things exceptionally well. OCLC's comparative advantages rest primarily in core products and services such as cataloging and resource sharing. Thus, the basic planning algorithm for research and development will emphasize: (1) online products and services over offline; (2) core services over noncore; and (3) enhancements to core, online products over noncore, offline products.

In the next decade, OCLC will maintain the staff, expertise, culture, and financial resources to carry out its public purposes as a nonprofit corporation. OCLC will use these resources to carry out the following strategy and vision.

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Strategic Overview

Strategy: 1990–1995

- **Maintain essential elements of OCLC's proven formula:** collaboration, libraries, networks, low-cost products, excellent service, and financial independence.
- **Rebuild and reemphasize core services** in cataloging and resource sharing.
- **Create a new core business** in reference services.
- **Forge information alliances** with other organizations to develop new reference products and services that OCLC could not do by itself.
- **Reduce the trend toward being all things to all people** by refocusing the basic product line through selective acquisitions and divestitures.
- **Develop local alliances abroad** that will enhance international growth.

Vision: 1995–2000

- **Pursue dual strategy** of planned enhancements to existing base of products and services and planned additions to the base of new products and services.
- **Maintain position** as a world-class database of bibliographic information through a steady stream of enhancements for core services in cataloging and resource sharing.
- **Move beyond** bibliography to become a world-class provider of reference services, including full-text electronic information.
- **Become fully integrated** into the digital, broadband, global community that is emerging.
- **Provide information** in the form required, when and where needed, at an affordable price.

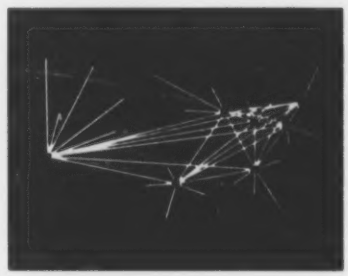
Strategy 1990-1995

Build a new, modular technological platform for cataloging and resource sharing; create a new reference service; forge new information alliances.

Since 1989, OCLC's focus has been primarily on the implementation of a new telecommunications network, building a new reference system, and implementing a new online system for cataloging and resource sharing. This emphasis emerged from an earlier analysis that thoroughly examined OCLC's core and non-core services. This analysis showed that if OCLC had stayed exclusively in its core services — cataloging, resource sharing, and telecommunications access — and had not ventured into non-core areas, revenues would have been lower but contribution to equity would have been higher. Thus, if OCLC had continued to focus on its core services, it would have been smaller but better able to meet its goal of reducing the rate of rise of library costs by keeping down its prices to member libraries.

Accordingly, OCLC's strategy in the 1990-95 timeframe is to return to basics, to fundamentals. OCLC's roots are in libraries, its ethos is collaboration and cooperation, its partnership with regional networks, and its strengths in cataloging, resource sharing, and excellent user service.

OCLC will build a new, modular technological platform that will reemphasize core services and enable it to provide a steady stream of enhancements and the ability to adjust its course rapidly in the dynamic environment of library automation in the 21st century. This new platform includes a new, $70 million telecommunications network; a new, $30 million online system (PRISM service); and a new, $10 million reference system (EPIC service).



New Network

OCLC began installing its new telecommunications network in November 1990. This packet-switched network supports the Open System Interconnection Standard (X.25) and will enable OCLC to link more easily with other networks in the education and scientific communities. It is fast, flexible, cost-effective, redundant, accommodates the expanded transmission needs of the PRISM service and future applications, and supports international standards. It is also private and dedicated to the needs of libraries and their patrons.

Strategy

PRISM

OCLC launched the PRISM service in November 1990. Enhanced capabilities, a new computer system architecture, and a vision of how information will be used in the future are its principal components. The first release of PRISM will be completely installed in member libraries by 1992. It provides library professionals with easier editing, enhanced searching, and more effective processing of bibliographic information. Subsequent releases will enhance libraries' resource sharing and cataloging capabilities.

EPIC

In January 1990, OCLC introduced the EPIC service, an online reference system that provides subject, keyword, and Boolean searching for a variety of databases, including the OCLC Online Union Catalog. In Fall 1991, the end-user version of EPIC, FirstSearch Catalog, became available. It is the first OCLC online product designed for patrons.

Information Alliances

OCLC is entering into several strategic information alliances with other organizations that will provide new products and services that neither could provide separately in such areas as preservation, electronic publishing, and document delivery. For example, OCLC and the American Association for the Advancement of Science will launch a new, electronic science journal in 1992.

Acquisitions and Divestitures

OCLC will rationalize its line of products and services by narrowing the focus to those that are economically viable, that provide a clear comparative advantage, and that meet a clear user need that is not being met by others or that OCLC can meet more economically. The acquisition of MAPS The MicrograPhic Preservation Service and the divestiture of the Local Systems Division both meet those criteria.

Summary

The 1990–95 timeframe is an important transition period for OCLC. OCLC will return to basics, will totally retool its factory, will consolidate its market for traditional products and services, will lay the foundation for a new core business in reference services, will pursue more rapid international growth, will refocus its product line, and will develop the necessary alliances for a steady stream of new reference products and services.

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Vision 1995-2000

Provide information to people in a form they want, when and where they need it, at a price they can afford.

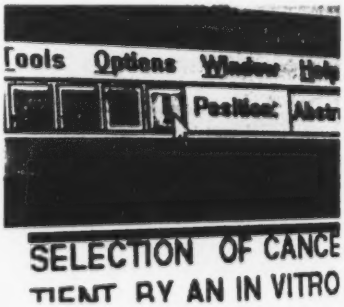
With a new technological platform, with new and enhanced products and services, and with a diverse membership base committed to the broad public purpose of furthering access to the world's information, OCLC is uniquely positioned for the next period in the Information Age.

Electronic Medium

As we approach the 21st century, the electronic medium will increasingly become the medium of choice for an increasing number of people who will create, organize, store, access, retrieve, and distribute information in electronic form.

Scholars and research scientists will use the medium to transform ways in which information is acquired, used, and shared in the conduct of research. From his or her workstation, the scholar will communicate with peers, consult databases, transmit or analyze large quantities of data, and manage personal libraries.

Teachers and students will use the medium to augment the classroom and textbook, with a shift from the passive printed page to the interactive electronic screen that could pose or entertain questions, provide or analyze answers.



Writers, editors, and publishers will still create and produce books and journals, but the pattern of use and production will gradually shift to favor the faster and more powerful methods afforded by electronic means.

People will be looking for smaller and smaller needles of information in bigger and bigger information haystacks. They will send more and more documents by Fax or by online systems rather than by mail.

The holdings of libraries — books, journals, maps, manuscripts — will increasingly exist in electronic form. People will enjoy the option of consulting the printed and the electronic page. Increasingly, they will use library services without having to go to the library. The role and dominant characteristics of the library will change, and OCLC must change as well.

The possibility of the electronic medium will also create demand for new services, both from libraries and from OCLC. There will be an increasing need for effective access to a variety of new information sources — bulletin boards, online data, video and sound data, and electronic publications of

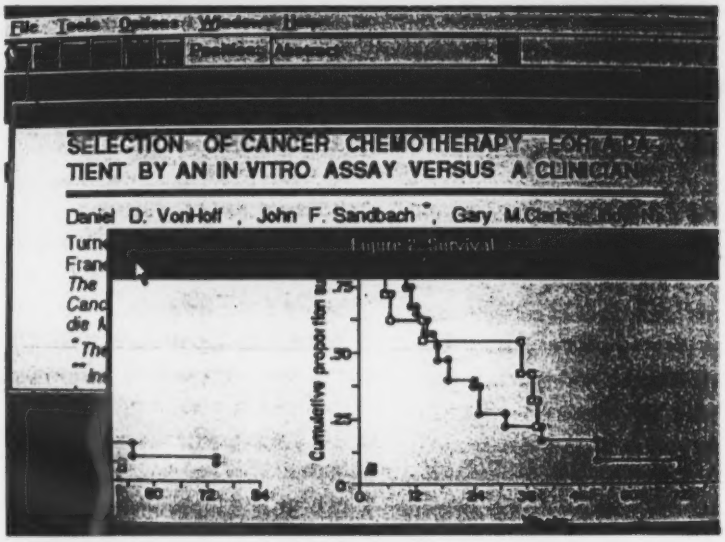
all sorts. The gradual shift from paper to an electronic medium that incorporates data, moving images, and on-demand delivery will pose major challenges to publishers, to information users, and to libraries.

Although powerful networks will afford ubiquitous end-user access, that access will be neither universal nor sufficient. Indeed, librarianship will require a new breed of electronic information specialists who will have to reinvent for the new electronic environment the traditional library functions of cataloging, archiving, and providing access to information.

How these needs will be met in the 21st century cannot be forecast with precision. The specifics will depend on the future pattern of technological and economic developments. Much research will be necessary. Success in such a rapidly changing technological environment will require flexibility and agility.

Dual Strategy

OCLC intends to pursue two complementary strategies in the latter years of its journey to the 21st century. The first is an organized and orderly process of adding enhancements to OCLC's existing base of products and services. The second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is an organized and orderly process of adding new products and services. The first strategy will be driven largely by economics, the second by technology. Both will rest fundamentally on advancing the goals of furthering access to information and reducing the rate of rise of costs of that information.

Following installation and stabilization of the new technological platform, OCLC will add a steady stream of enhancements to existing products and services. These enhancements will enable OCLC to move steadily along a continuum that will eventually provide end-user electronic access to expanded information services through seamless, easy-to-use interfaces.

Cataloging

OCLC will continue to maintain the Online Union Catalog as the world's preeminent database of bibliographic and library holdings information. Enhancements such as authority control, batch processing, and database enrichments will control costs, increase productivity, and improve the quality of information. New database structures and new management tools will better meet library and end-user needs at the national, regional, and local levels. Technical advances and pricing policy changes will encourage addition of original cataloging and holdings information from libraries.

Resource Sharing

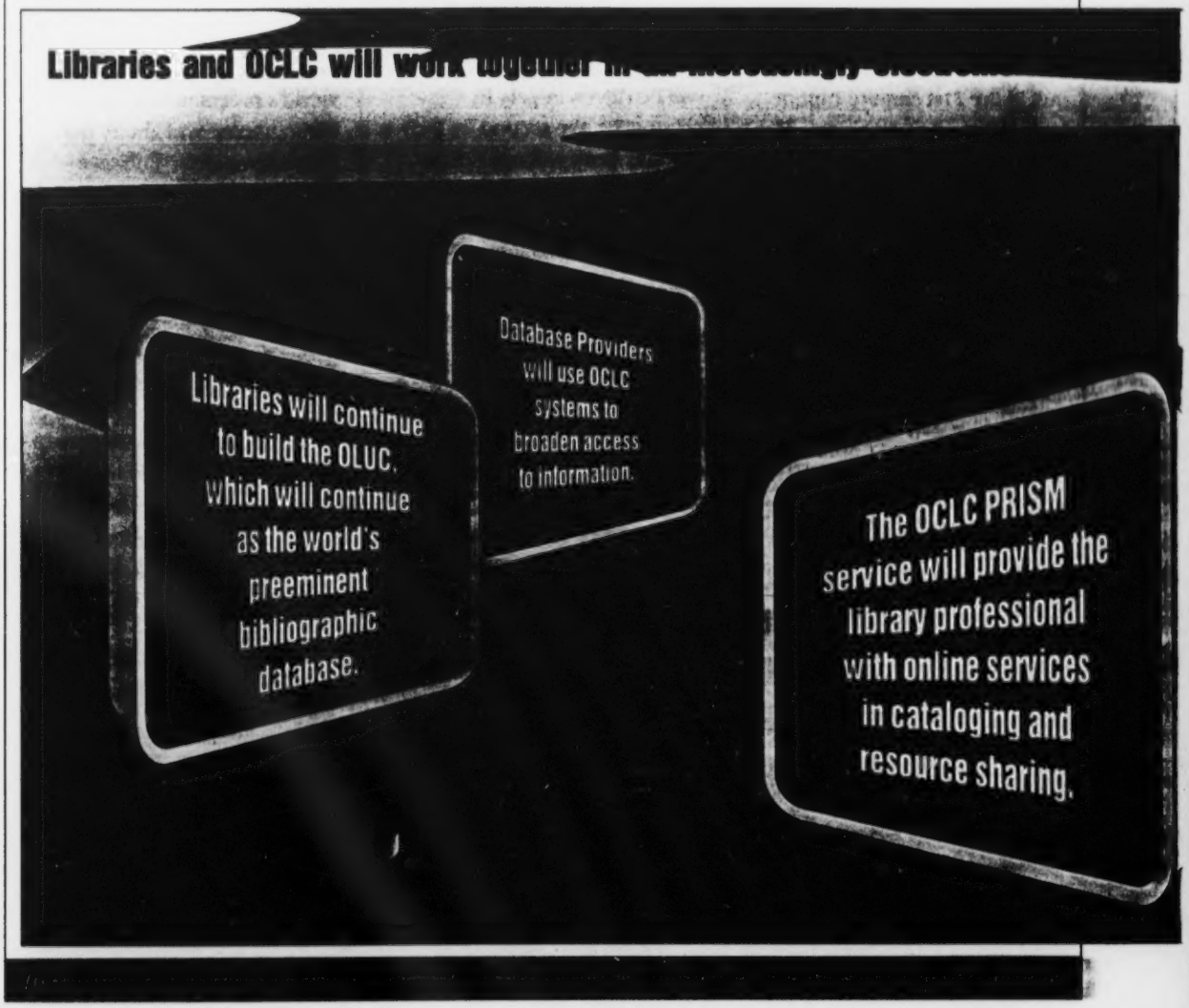
OCLC will eventually combine searching, interlibrary loan, and document delivery into a single service for fast, low-cost resource sharing. Enhancements will improve and expand holdings information; will control costs and increase productivity; will apply format and telecommunications standards for linking libraries and systems; and will augment and support existing and new cooperative arrangements. Resource sharing will move beyond bibliography and interlibrary loan to include physical document delivery and electronic publishing.

Reference

Growth in database offerings, effective end-user access to databases, electronic delivery of full-text documents, and affordable pricing are critical to the future development of OCLC reference services. OCLC will deliver reference services to people at public access terminals in libraries, on campus networks, and by dialing-in from home or office.

OCLC's dual strategy also acknowledges the inevitability of advances in digitization, scanning, telecommunications, hardware and software, and related technologies that will have major and far-reaching effects on OCLC's products and services in cataloging, resource sharing, and reference services.

New products and services to answer the needs of information users that are now largely dreams on the dim horizon will become realities in the 21st century. Clearly, OCLC is


Libraries and OCLC will work
Libraries will continue to build the OLUC, which will continue as the world's preeminent bibliographic database.
Database Providers will use OCLC systems to broaden access to information.
The OCLC PRISM service will provide the library professional with online services in cataloging and resource sharing.

comparatively well-situated to provide direction, system design, and key services that will assist in this process. For example, OCLC's new, modular technological platform and its adherence to emerging international standards will enable OCLC to adapt to the rapid changes most certainly in store for organizations involved in providing people with electronic information.

OCLC's financial resources and unique skills base will enable it to take advantage of technological advances and achieve its service objectives. Finally, OCLC's strong commitments to furthering access to information, to libraries and librarianship, to financial independence, to doing a few things well, and to a healthy respect for realism and for flexibility in plans, will continue to guide its strategic and operational directions.

Next Twenty Years

The library world has turned over many times since OCLC introduced the first online system 20 years ago, yet some things remain the same. Cooperation, collaboration, and resource sharing are vital to OCLC and to its membership, whose ranks have swelled in two decades from 54 libraries in Ohio to more than 13,000 in 46 countries.

The next decade will require more cooperation, more collaboration, and more resource sharing in the not-for-profit library community. OCLC fully intends to remain a leader in that effort, both now and in the 21st century.

OCLC will provide publishers with electronic distribution of their publications.
OCLC Reference Services will provide sophisticated access to a variety of databases — full-text, abstracts/indexes, and bibliographic.
People will be able to get information when and where they need it, in a form they want, at a price they can afford.

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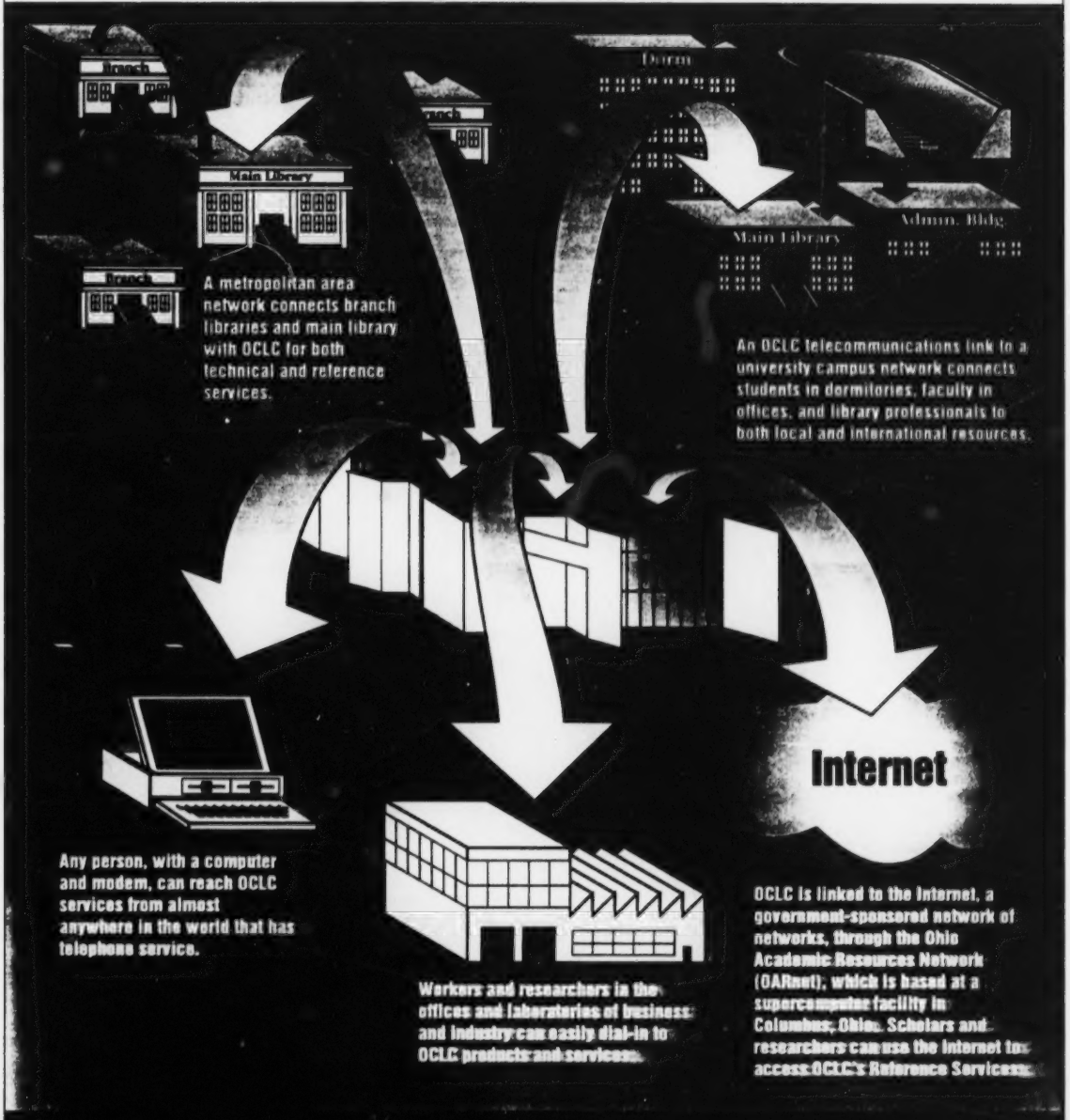
• Vision 1995-2000 •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Main Library
A metropolitan area network connects branch libraries and main library with OCLC for both technical and reference services.
An OCLC telecommunications link to a university campus network connects students in dormitories, faculty in offices, and library professionals to both local and international resources.
Internet
Any person, with a computer and modem, can reach OCLC services from almost anywhere in the world that has telephone service.
Workers and researchers in the offices and laboratories of business and industry can easily dial-in to OCLC products and services.
OCLC is linked to the Internet, a government-sponsored network of networks, through the Ohio Academic Resources Network (OARnet), which is based at a supercomputer facility in Columbus, Ohio. Scholars and researchers can use the Internet to access OCLC's Reference Services.

The new telecommunications network positions OCLC for the electronic future.

The new OCLC telecommunications network supports the Open System Interconnection standard OX.25. It is fast, cost-effective, able to accommodate the expanded transmission needs of the PRISM service and future applications, and supports international standards.

The packet-switched network is distributed, with computer centers located in two cities across the United States. The computer centers are linked to seven major hub nodes with large data communication lines running back to OCLC's network facilities in Dublin, Ohio.

The new network's state-of-the-art technology enables OCLC to link more easily with other networks in the education and scientific communities. It provides people with cost-effective, reliable access to OCLC products and services in a variety of ways.

OCLC Profile

History

In 1967, the presidents of the colleges and universities in the state of Ohio founded the Ohio College Library Center (OCLC) to develop a computerized system in which the libraries of Ohio academic institutions could share resources and reduce costs.

OCLC's first offices were in the Main Library on the campus of The Ohio State University (OSU), and its first computer room was housed in the OSU Research Center. It was from these academic roots that Frederick G. Kilgour, OCLC's first president, oversaw the growth of OCLC from a regional computer system for 54 Ohio colleges into an international network. In 1977, the Ohio members of OCLC adopted changes in the governance structure that enabled libraries outside Ohio to become members and participate in the election of the Board of Trustees; the Ohio College Library Center became OCLC, Inc. In 1981, the legal name of the corporation became OCLC Online Computer Library Center, Inc. Today, OCLC serves more than 13,000 libraries of all types in the U.S. and 45 other countries and territories.

Mission

OCLC's objectives are to increase availability of library resources and to reduce the rate of rise of library costs. Its broad public purpose is to further access to the world's information.

As set forth in OCLC's *Articles of Incorporation*, the objectives of the organization are to:

Establish, maintain and operate a computerized library network and to promote the evolution of library use, of libraries themselves, and of librarianship, and to provide processes and products for the benefit of library users and libraries, including such objectives as increasing availability of library resources to individual library patrons and reducing rate-of-rise of library per-unit costs, all for the fundamental public purpose of furthering ease of access to and use of the ever-expanding body of worldwide scientific, literary and educational knowledge and information.

Governance

OCLC's governance structure consists of General Members, the Users Council, and the Board of Trustees. General Members are libraries that participate in the OCLC System and do their current cataloging online or by tapeload. These General Members participate in OCLC's governance by electing delegates to the Users Council, which reflects and articulates the various interests of the membership. The Users Council, currently composed of 60 delegates, ratifies amendments to the Articles of Incorporation and Code of Regulations of OCLC, and elects six trustees to the OCLC Board. The 16-member Board of Trustees possesses powers similar to those of university trustees. In addition to the six Users Council-elected members, the Board consists of the founder of OCLC, the President of OCLC, and eight trustees elected by the Board itself, five of whom come from fields outside librarianship.

In 1991, members include the following libraries: 1300 academic; 91 research; 620 public; 48 state; 75 state/municipal government; 74 processing centers; 361 law; 338 medical; 425 corporate;

• OCLC Profile •

135 theological; 464 federal; 84 school; 423 community/junior college; and 373 others.

Total participating libraries (13,847) includes all full cataloging members and participants in serials union lists and group access programs.

Finances

OCLC is exempt from federal income taxation as an organization formed and operated for educational, scientific, and literary purposes as described in Section 501(c)(3) of the Internal Revenue Code, as amended.

While a nonprofit corporation, OCLC still seeks to build a strong financial base from which to pursue its broad public purpose. By the mid-1990s, OCLC will have provided its member libraries with more than $1 billion in computer products and services.

Products and Services

OCLC designs and markets computer systems and databases for libraries in the following areas: cataloging, communications and access, retrospective conversion, resource sharing, and reference. Separate divisions are engaged in publishing and preservation microfilming.

Cataloging Services. OCLC provides both online and compact disc read-only memory (CD-ROM) cataloging systems. The online Cataloging Subsystem, activated in 1971, provides the bibliographic information essential to library activities and serves as the base for other subsystems and related services and activities. The CD-ROM cataloging system, created for small libraries with one to four terminals, features an online link to the Online Union Catalog.

Additional products and services include a government document cataloging service; an OCLC in-house processing service that acquires, catalogs, and adds necessary labels to library materials; microcomputer software that can be used on the Cataloging Subsystem to reduce repetitive, time-consuming tasks; tape services that enable libraries to add their holdings to the OCLC database electronically or obtain electronic copies of their cataloging for local database use; and a cataloging system for Chinese, Japanese, and Korean library materials.

Communications and Access Services. OCLC makes available microcomputer workstations and telecommunications services for access to the Online Systems. The current workstations are Wyse microcomputers, to which OCLC has added special hardware and software features for OCLC Online System applications. Libraries with terminals and workstations provided by OCLC may, but are not required to, enter into maintenance and repair contracts with OCLC. OCLC subcontracts with others for the performance of these services.

Retrospective Conversion Services. OCLC offers both centralized, through the OCLC Online System, and microcomputer-based retrospective conversion services to convert older library cataloging records, usually cards, to machine-readable form. Batch-processing options include MICROCON, a microcomputer-based retrospective conversion service in which library users enter information on diskettes that are subsequently processed at OCLC; more than 21 million records have been converted through this service. Contract processing is done by the OCLC Retrospective Conversion service, which operates two shifts of 75 terminal operators each and which has converted over 48 million records since 1976. Libraries also perform retrospective conversion themselves, using the OCLC Online System, and have con-

verted approximately 78 million records to machine-readable form.

Resource Sharing. Resource-sharing services include the Interlibrary Loan Subsystem and the Union List Subsystem. The Interlibrary Loan Subsystem, introduced in 1979, enables libraries to select holdings information electronically from the Online Union Catalog to send requests for materials to other libraries via the Online System. Libraries use the Subsystem to bypass many labor-intensive tasks associated with traditional interlibrary loans.

The Union List Subsystem enables libraries to inventory and monitor serials (journal) collections among self-defined groups of libraries. For example, an Ohio serials union list might report the journal holdings of all public libraries in Ohio. The subsystem currently supports 127 union list groups comprising over 8,931 libraries.

Additional services include a collection analysis system (compact disc) that enables libraries to compare their collections and buying patterns with other libraries; microcomputer software that increases staff productivity in using the Interlibrary Loan Subsystem; computer-based training; group database and resource-sharing capabilities; and a microfiche publication that lists U.S. newspaper titles held in libraries.

Reference Services. OCLC provides both online reference services and compact disc databases that are used by reference librarians to find information for library users.

Online reference services. OCLC introduced the EPIC service in January 1990. This online reference system provides subject access and other sophisticated searching techniques to a variety of databases, including the entire OCLC Online Union Catalog of 24 million records. As of June 30, 1991, nine databases were available on the EPIC service, which is now accessible via the Internet, a federally funded network of networks. Additional databases are routinely being added.

OCLC introduced the FirstSearch service in the fall of 1991. This end-user online reference system has an easy-to-use menu interface so that students, faculty, and other library patrons can access the OCLC Online Union Catalog and other databases.

Optical Disc Reference Services. With a third party, OCLC publishes compact disc reference databases in specialized subject areas such as American literature and literary criticism. Through another arrangement, OCLC publishes compact disc subsets of data extracted from the OCLC Online Union Catalog in such areas as agriculture, education, arts and humanities, general reference, and science and technology.

Online Union Catalog. The OCLC Online Union Catalog is also the host database for important national library programs. The CONSER (Cooperative Online Serials) Program is a cooperative effort among 19 OCLC-member libraries, the Library of Congress, the National Library of Medicine, the National Agricultural Library, the National Library of Canada, and OCLC to build and maintain a comprehensive database of authoritative bibliographic information for serial publications. The U.S. Newspaper Program, under the aegis of the National Endowment for the Humanities, is creating a computerized catalog of the more than 300,000 newspapers published in North America since 1690. The Major Microforms Project, initiated by the Research Libraries Advisory Committee to OCLC, enables libraries to catalog significant microform holdings.

Through the Linked Systems Project, 27 OCLC member libraries transmit new or edited Authority records to the Library of Congress via the OCLC System.

Dewey Decimal Classification. The Forest Press Division of OCLC publishes the Dewey Decimal Classification (DDC), which many libraries use to arrange books and classify their contents for cataloging. First published in 1876, the DDC is the world's mostly widely used library classification

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system. The DDC is edited by classification specialists at the Library of Congress. OCLC published the 20th edition of the DDC in 1989. OCLC is exploring publishing electronic versions of the DDC.

Preservation Services. MAPS The MicrograPhic Preservation Service provides high quality preservation microfilming for archives, historical societies, libraries, and museums. MAPS is based in Bethlehem, Pennsylvania. OCLC is exploring preservation and access of full-text materials using imaging and digitizing techniques.

Marketing Channels

In North America, OCLC provides its products and services through 19 affiliated regional networks. OCLC Europe, located in Birmingham, England, serves libraries in Europe, Africa, and the Middle East. OCLC Asia Pacific Services, with offices in Dublin, Ohio, covers Asia, the Pacific region, and Latin America.

International

OCLC provides products and services to libraries in Australia, Barbados, Belgium, Brazil, Canada, People's Republic of China, Denmark, Ecuador, Egypt, Finland, France, Federal Republic of Germany, Greece, Guam, Hong Kong, Iceland, India, Republic of Ireland, Israel, Italy, Jamaica, Japan, Republic of Korea (South Korea), Malaysia, Mexico, Netherlands, New Zealznd, Nigeria, Norway, Oman, Panama, Puerto Rico, Qatar, Republic of Trinidad and Tobago, Saudi Arabia, Singapore, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Kingdom, United States, U.S. Virgin Islands, and Yugoslavia.

There are currently 82 OCLC member libraries in the United Kingdom, 61 in the Netherlands, 39 in Canada, 27 in Japan, 20 in France, 10 in Denmark, and 10 in Ireland. Belgium, Finland, Greece, Germany, Israel, Oman, Spain, and Sweden each have fewer than 10 members. OCLC's global activities continue to expand, rapidly opening major international opportunities for resource sharing and access to information.

The OCLC Online Union Catalog

The OCLC Online Union Catalog has been available to libraries via the OCLC Online System since

1971. This database is essentially a merged, electronic catalog of the bibliographic and holdings information of 4,800 member libraries. The database contains more than 24 million records and grows at a rate of approximately 38,000 records a week. The records describe books, journals, audiovisual media, maps, archives/manuscripts, sound recordings, music scores, and computer files. A typical record contains a physical description of an item and information about its intellectual content. Also attached to each record in the OCLC database is a list of member libraries that hold the item, arranged alphabetically by state or country. The 24 million records in the database have more than 404 million location listings attached to them.

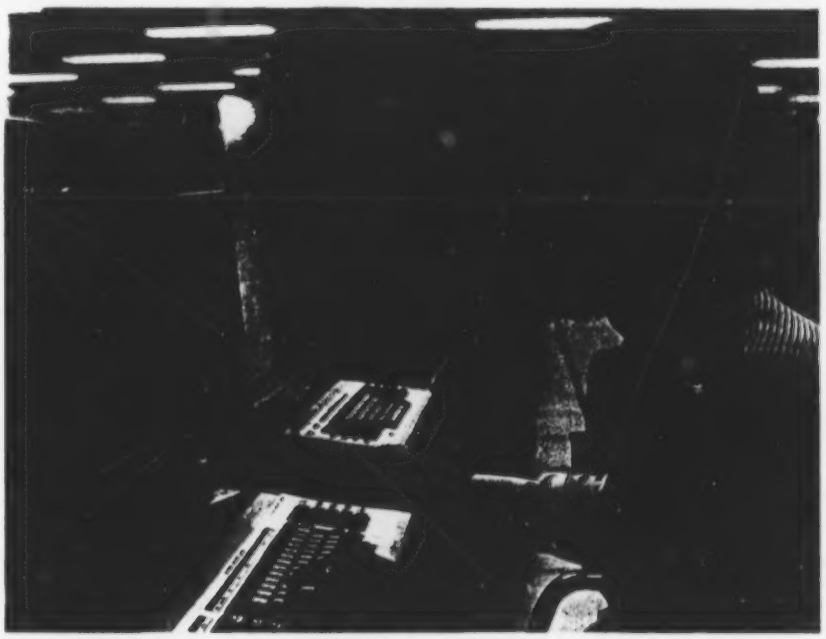
The database has been built with the OCLC Cataloging Subsystem, an online shared cataloging system, in which participating institutions retrieve and use bibliographic records contributed by other libraries, and enter records for items not already cataloged. Once a library catalogs an item and adds the catalog record to the OCLC database, it becomes available to other libraries for a variety of uses. The database now supports nearly 60 related services, tools, and products, ranging from reference databases on compact discs to interlibrary loan services.

On average, users succeed in locating records in the OCLC database for 94.6 percent of the current items they wish to catalog and must enter new records for only 5.4 percent.

The OCLC database grows at a rate of approximately 1 million records every six months. These records are created through the cooperative efforts of OCLC participating libraries, which contribute the preponderance of records, and the Library of Congress, the National Library of Medicine, the U.S. Government Printing Office, and other national libraries (such as the British Library, the

National Library of Canada, and the National Library of Australia).

Participating libraries use the Online System to catalog approximately 425,000 books and other materials per week, and OCLC prints and distributes nearly 2 million catalog cards per week for these items.



OCLC bases its charges for cataloging on the use of the Online Union Catalog. If a bibliographic record already exists in the database, a library is assessed a charge the first time it uses that record for catalog production, but it may make subsequent cataloging uses of the record without charge. Users are also assessed a charge for viewing displays of holdings information attached to bibliographic records, and they are charged for searches of the Online Union Catalog in excess of a specified threshold of accumulated searches. To reward contributions to the database and encourage resource sharing, OCLC offers credits for original cataloging and interlibrary lending.

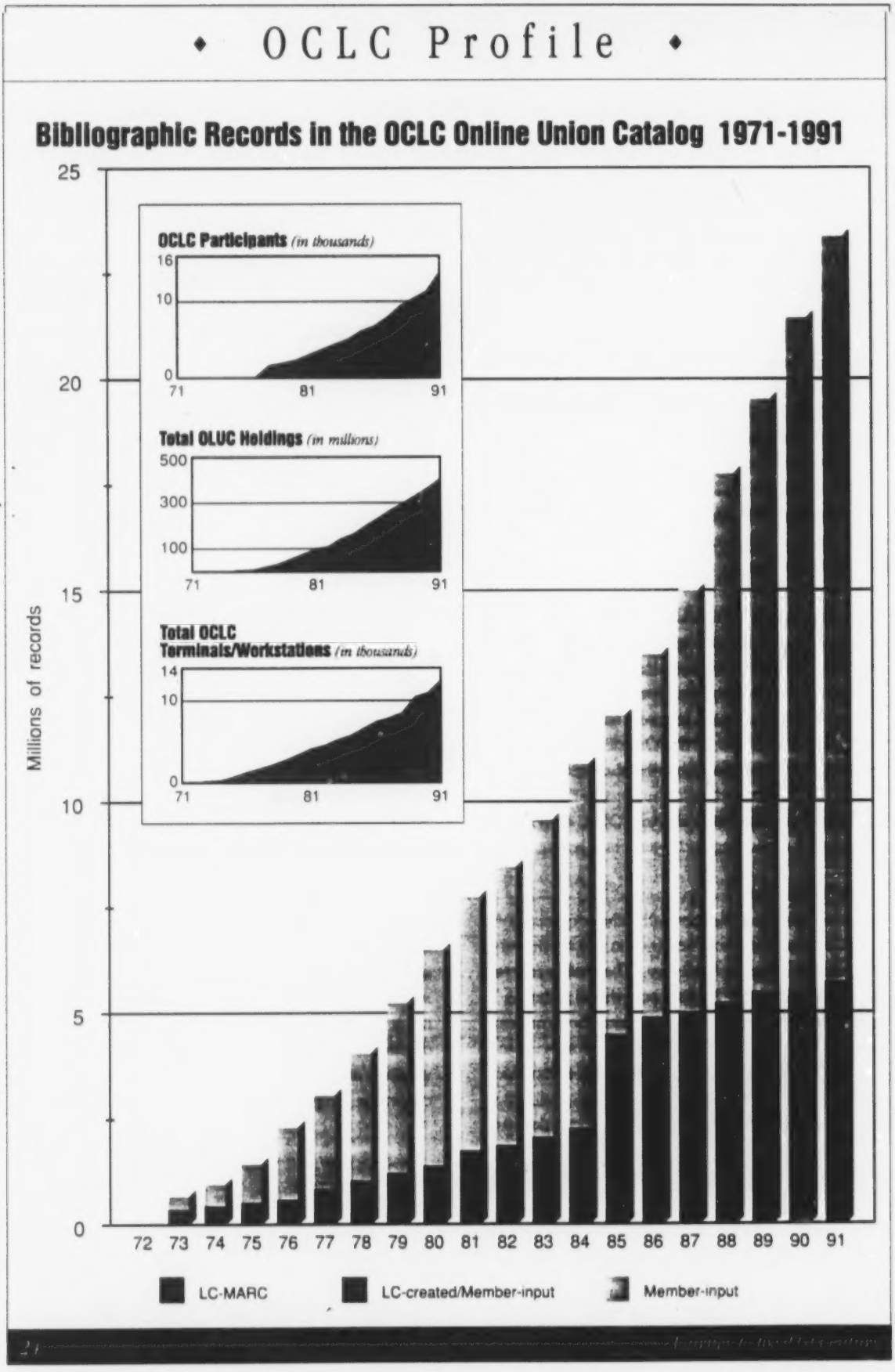
New Ventures

Through strategic alliances with other organizations, OCLC is launching new ventures in electronic publishing and document delivery. *The Online Journal of Current Clinical Trials* is scheduled to begin electronic publication in 1992, with the American Association for the Advancement of Science providing editorial content and OCLC the electronic compilation, publishing, and delivery capabilities. Also in 1992, OCLC will start a document delivery service with online links to its Reference Services and based principally on a new online serials table of contents database.

Research

The OCLC Office of Research conducts mission-oriented research in the following areas: enhancing use of the OCLC Online Union Catalog; investigating the requirements of the electronic library; investigating applications of image processing; and improving interface design. The goal of research at OCLC is to explore new ways to benefit library users and the dedicated people who serve them.

OCLC identifies research and technical advances that are of value to the organization in meeting its corporate purposes. Some research projects may lead directly to the development of services for OCLC members, and others may be of general use to the library and information community. Much of this research and technology assessment is conducted internally, but OCLC also funds or otherwise supports research conducted at universities or other research centers that furthers the corporate purposes of OCLC.


Bibliographic Records in the OCLC Online Union Catalog 1971-1991
Millions of records
25
20
15
10
5
0
72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91
LC-MARC
LC-created/Member-input
Member-input
OCLC Participants (in thousands)
16
10
0
71 81 91
Total OLUC Holdings (in millions)
500
300
100
71 81 91
Total OCLC Terminals/Workstations (in thousands)
14
10
0
71 81 91

Networks

State and regional networks are organizations that contract to provide OCLC services and support to OCLC-member and participating libraries. OCLC works closely with networks in support of mutual cooperation and resource-sharing goals.

AMIGOS Bibliographic Council, Inc.
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(800) 777-7674 (National)

BCR Ames Office
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CAPCON
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28